



Want to Negatively Impact Profits?

Simple. Ignore what you can't see.



CASE STUDY

Helping Optimize Buildings & Budgets™

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WANT TO NEGATIVELY IMPACT PROFITS? Simple. Ignore what you can't see.

Imagine. You're the restaurant manager at Indiana's top grossing Applebee's restaurant. It's your peak service time. You hear hustling, bustling and laughter. Indoor customers are enjoying their meals, planning their weekend activities, and keeping socially distant. Carryout, curbside pick-up, and delivery orders are flying out the door – left and right.



Then, BAM it hits! Your sanitary sewer line clogs and it's backing up. Waste begins to overflow from the restaurant's kitchen and restroom floor drains. You immediately close the restaurant and quickly clear out all customers and employees. Business operations come to a halt. You're standing in the middle of a complete mess. Now what?



True story. It happened to Ryan Cain, the General Manager at the Applebee's restaurant in Greenwood, Indiana in mid-November 2020. Discover how VASEY identified and solved the problem.



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Cain, the restaurant's manager, called a reputable, long-time vendor to conduct a pipe inspection. The location of the clog was identified; however, this vendor didn't do dig work or handle repairs. Next, Cain called VASEY's Plumbing Manager, Mike Bogan, and said, "If VASEY can get here tomorrow, you've got the job!"

The following morning at 6:00 AM, Bogan and the VASEY team were at Applebee's. First, VASEY checked obvious problem sources, including a relatively new 1,000-gallon grease interceptor they installed three years prior. After inspection, they determined the interceptor was working properly and it wasn't contributing to the existing sewer backup.

VASEY was hesitant to start repairs without doing their own camera line inspection. However, being in shut-down mode, and with Cain's previous long-term vendor relationship (15 plus years), he resolutely insisted they immediately dig at the predetermined location.

If the situation had only been that simple. The first location wasn't the source of the problem. However, there was a silver-lining. Digging at the first location provided VASEY easier access to snake and perform a second camera line inspection to identify and locate the true problem – a break in the sanitary line located 30 feet away. Side note: a restaurant's sewer problems are most often related to the sanitary line (restroom waste), or fat, oil, and grease build-up (kitchen waste).

During the restoration process, Bogan was in constant communication with Cain and the Applebee's State and Regional Managers (overseeing 57 and 565 locations respectively). Prior to being a restaurant, this location was a bank. Assuming the plumbing fixtures were original, it was simply a matter of time before a sewer system failure occurred.

After four, 10-to-12 hour days of hydro-vacuuming, trenching, capping broken pipes, dye testing, installing, and tying in new drain lines, VASEY repairs and clean up were complete.

“This is a testament as to why restaurants and commercial kitchens of any kind should always snake and water jet drains monthly.

Grease interceptor maintenance can prevent costly downstream damage that will inevitably surface years later.

Most emergency plumbing calls can be avoided just by performing regular maintenance.”

**- Roger Mooney -
VASEY Sales Manager**

Fats, Oils, and Grease (FOG)

Fats, Oils, and Grease (FOG) are an expensive and unsanitary problem in our sewers. FOG comes from food scraps, meat fats, lard, oil, margarine, butter, baking goods, sauces and dairy products. While it's unlawful to improperly discard these substances, it's also harmful to the environment.



The problem: when fats, oils and grease are washed down sinks, floor drains or discarded improperly, major clogs are formed. In time, these clogs can cause sewer backups. These backups are costly to repair, harmful to the environment and can potentially cause health hazards if not remediated immediately.

What are grease interceptors and why are they important?

A grease interceptor is located between kitchen drain lines and sanitary sewer lines. Grease interceptors capture the FOG that enters sink drains from food service activities such as food preparation, dish washing and cleaning. There are two types of grease interceptors – hydro-mechanical and gravity.

Hydro-mechanical Grease Interceptors (HGI), sometimes called grease traps, are installed indoors under sinks and FOG plumbing fixtures. Their capacity is measured by the volume of water that flows through the fixture which ranges from 20-50 gallons per minute.

For volumes greater than 50 gallons per minute, Gravity Grease Interceptors (GGI) are installed outdoors and may be above ground or underground. These devices separate FOG and food waste from wastewater in large tanks that range in size from 1,000 to 4,000 gallons.

For proper maintenance, hydro-mechanical grease interceptors located inside need to be pumped at least once a month and larger outside gravity grease interceptors at least every three months.



TIMELINE SUMMARY

Tue

Sewer line backs up and restaurant closes. First camera inspection performed by another vendor to locate the clog.

Wed

VASEY arrives at 6:00 AM to begin work and inspect the grease interceptor installed three years ago. Grease interceptor working properly. Concrete tear-out and dig at Location One. Unfortunately, Location One is not the problem.

Thu

VASEY conducts second camera line inspection to determine true source of the problem, 30 feet away. Concrete tear-out and hydro-vacuum digging continues. Remove disintegrated cast iron pipeline.

Fri/Sat

Begin restoration. Conduct dye tests to locate all drain sources and create a new tie-in for the restroom and kitchen waste lines.

Sun

Temporary delay due to concrete company's unavailability to pour.

Mon

New concrete slab poured. Repair tile and carpet work completed. VASEY and Applebee's team thoroughly cleans restaurant.

Tue

Applebee's opens promptly at 11:00 AM for service!

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Cut an additional three feet to the right, back through a hallway outside the restrooms.



The first location dig site. Prior to being an Applebee's, the building was a bank. Instead of removing the old foundation, the builder poured a new foundation over the old. In total, it consisted of a 4-inch slab, followed by 10 inches of pea gravel, on top of another 4-inch concrete slab.

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Location One: black pipe
cut due to supposed clog.



Tie in location for the bathrooms (to the left). VASEY inserted camera and drain-jetter to determine the true source of the problem.

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Existing white pipe going through the middle came off a three-compartment sink feeding into the grease line.

Location Two: the actual problem. A broken pipe found 30 feet away from the first dig site.



Dig Location Two: On the cook's line, about 30 feet away from Location One. On the right, sits the commercial stoves (where the sand and pea gravel are built up). On the left, the reach-ins, where all food is prepped. Due to the food prep line's location, the existing pipe was capped and a new line added, tying back to the restrooms. VASEY thoroughly inspected the entire facility to identify the grease and sanitary lines and what pipes fed into each system.

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Hydro-vacuum

Existing white PVC pipe from a three-compartment sink feeding to the grease line – surprisingly not made of cast iron. Typically, cast iron is used since it can tolerate higher temperatures.

Cracked, broken cast iron pipe.

Dig Location Two: fully exposed, broken cast iron pipe. Once the damaged pipe was exposed, it disintegrated. Upon closer inspection, the entire pipe cracked along its bottom side (normally cast iron pipes fail "bottom up" because that's where the grease settles. The average life span of a cast iron pipe ranges from 20 to 30 years).

Toward the upper right, a hydro-vacuum which used high pressure water to break up hardened clay and dirt. The dry soil is turned into a wet slurry to facilitate removal by suction.

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The power of Hydro-vacuuming: an 8-inch layer of sand and concrete-like dirt. The entire trench (4 feet wide x 10 feet long x 5 feet deep) was hydro-vacuumed quickly. Manually, with pickaxes and multiple men, it would have taken endless man-hours.

New underground PVC pipe leading back to the men's restroom.

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Dye testing utilizes dye tracer tablets that are safe, non-toxic and biodegradable. Similar to food coloring, a plumber places a red, blue, or yellow tablet in the sink; runs water over it and tracks where it comes out. It verifies everything from the point of origin is flowing properly into the grease interceptor or into the sanitary line.

PVC pipe shown is going underneath the wall into the men's restroom. VASEY had to cut the floor and find a good place to tie in to allow the waste to drain from the bathroom to the white PVC pipe and out of the building.

VASEY cut the pipe in the fore front to verify the remaining floor drains throughout the facility and to make sure nothing was feeding back into the grease line. VASEY dye tested every drain and pipe in the facility, tracking its flow to make sure everything else was 100% correct.

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This is a clean out TA Riser cap which will come to the top of the floor with an access cap. In the future, if there's a problem within this line, it can be accessed easily, inspected and/or jetted.

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THE AFTERMATH



*Inside and outside restroom areas...
before and after*



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*Kitchen cooking and preparation lines...
before and after*

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TESTIMONIAL

Hello, my name is Ryan Cain, and I am the General Manager at the Applebee's at the Greenwood Park Mall. I started working at this location in 2002. We had a cast main outlet pipe break in our building.

VASEY was the company that was chosen to take on the monumental task of locating the break, coordinating the dig, and repairing the break. VASEY's team, Mike Bogan, Jimmy Sexton, Jason Collins, and Jerry Courtney were instrumental in getting this repair done in a timely manner.

It became quickly apparent to the professionals from VASEY that we had even bigger problems than we had originally thought. Jerry isolated the location of the break 5-foot under our cooks' line from 30 feet away with a camera in the line and imaging tool.

Amazingly he was only off by inches when the concrete guys cut into it and when the VASEY guys dug down to find the problem. They ended up working on the problem all weekend and Monday so we could open Tuesday.

I couldn't imagine there being a better team of plumbers in the nation. These men knew exactly what they needed to do and found solutions when there seemed like there wasn't any. Please consider this a strong letter of reference for VASEY Plumbing and their team of experts. **I appreciated the work they did very professionally and the passion they have for customer satisfaction.**

I wouldn't hesitate to recommend them for any commercial plumbing job. VASEY should be proud of the work these guys do and appreciate who they have. Good people are hard to find and they have the best!

Sincerely and customer for life,

Ryan Cain

Ryan Cain

General Manager

Applebee's (317) 888-0744

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Drain Cleaning

Remedy common issues such as accumulated grit, grime, clogs, and mess. Proactive maintenance helps avoid/minimize future problems.

Drain Jetting (Hydro Jetting)

Handles clogs such as sediment, mineral build-up, grease and oil build-up, gunk, hair and other foreign matter.

Camera Line Inspections

Hi-tech drain cameras are flexible and examine pipes and pipe walls in drains from 2 inches to 30 inches in diameter.

Process Piping

Interconnected piping systems such as tubing, pipes, pressure hoses, valves, separators, traps, flanges, fittings, gaskets, strainers, and other components.

Pipe Location

Pipe detection quickly pinpoints the exact location of drain lines and existing breaks. The pipe detection system can be used to find all types of lines, such as cast iron, plastic, concrete, and vitrified clay.



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